IN THE CLAIMS

Please amend the claims as follows:

Claims 1-10 (Canceled).

Claim 11 (New): A continuously operated process for the intermediate isolation of the oxirane formed by reaction of a hydroperoxide with an organic compound in the oxirane synthesis, wherein the product mixture formed in the synthesis is fractionated in a dividing wall column to give a low-boiling fraction, an intermediate-boiling fraction and a high-boiling fraction and the oxirane is taken off in the intermediate-boiling fraction at the side offtake and the hydroperoxide is taken off in the high-boiling fraction at the bottom of the column.

Claim 12 (New): The process as claimed in claim 11, wherein the dividing wall column comprises at least two thermally coupled distillation columns.

Claim 13 (New): The process as claimed in claim 11, wherein the dividing wall column has from 10 to 70 theoretical plates.

Claim 14 (New): The process as claimed in claim 11, wherein the pressure at the top of the dividing wall column is from 0.5 to 5 bar and the distillation temperature at the side offtake is from 10 to 60°C.

Claim 15 (New): The process as claimed in claim 11, wherein the dividing wall column has from 10 to 70 theoretical plates and wherein the pressure at the top of the

dividing wall column is from 0.5 to 5 bar and the distillation temperature at the side offtake is from 10 to 60 °C.

Claim 16 (New): The process as claimed in claim 11, wherein the sum of key components in the purified oxirane is less than 5% by weight, with the sum of oxirane and all the other components present in the oxirane being 100% by weight.

Claim 17 (New): The process as claimed in claim 11, wherein the product mixture comprising the oxirane is prepared by a process comprising at least the steps (i) to (iii):

(i) reacting the hydroperoxide with the organic compound to give a product mixture comprising the reacted organic compound and unreacted hydroperoxide,

(ii) separating the unreacted hydroperoxide from the mixture, as defined in claim 1, resulting from step (i),

(iii) reacting the hydroperoxide which has been separated off in step (ii) with the organic compound,

with an isothermal fixed-bed reactor being used in step (i) and an adiabatic fixed-bed reactor being used in step (iii).

Claim 18 (New): The process as claimed in claim 17, wherein the dividing wall column has from 10 to 70 theoretical plates and wherein the pressure at the top of the dividing wall column is from 0.5 to 5 bar and the distillation temperature at the side offtake is from 10 to 60°C, and wherein the sum of key components in the purified oxirane is less than 5% by weight, with the sum of oxirane and all the other components present in the oxirane being 100% by weight.

Claim 19 (New): The process as claimed in claim 11, wherein the hydroperoxide used is hydrogen peroxide and the organic compound is brought into contact with a heterogeneous catalyst during the reaction.

Claim 20 (New): The process as claimed in claim 19, wherein the heterogeneous catalyst comprises the zeolite TS-1.

Claim 21 (New): The process as claimed in claim 17, wherein the hydroperoxide used is hydrogen peroxide and the organic compound is brought into contact with a heterogeneous catalyst during the reaction and wherein the heterogeneous catalyst comprises the zeolite TS-1.

Claim 22 (New): The process as claimed in claim 11, wherein the organic compound used is propylene and the oxirane is propylene oxide.

Claim 23 (New): The process as claimed in claim 17, wherein the organic compound used is propylene and the oxirane is propylene oxide.

Claim 24 (New): A continuously operated process for the intermediate isolation of propylene oxide formed by reaction of hydrogen peroxide with propylene in the propylene oxide synthesis, which process comprises at least the steps (i) to (iii):

(i) reacting the hydrogen peroxide with propylene to give a product mixture comprising the propylene oxide and unreacted hydrogen peroxide,

(ii) separating the unreacted hydrogen peroxide from the mixture resulting from step (i) by fractionating the mixture in a dividing wall column to give a low-boiling fraction,

an intermediate-boiling fraction and a high boiling fraction, and the propylene oxide is taken off in the intermediate-boiling fraction at the side offtake and the hydrogen peroxide is taken off in the high-boiling fraction at the bottom of the column,

(iii) reacting the hydrogen peroxide which has been separated off in step (ii) with propylene,

with an isothermal fixed-bed reactor being used in step (i) and an adiabatic fixed-bed reactor being used in step (iii).

Claim 25 (New): The process as claimed in claim 24, wherein the dividing wall column has from 10 to 70 theoretical plates and wherein the pressure at the top of the dividing wall column is from 0.5 to 5 bar and the distillation temperature at the side offtake is from 10 to 60°C.

Claim 26 (New): The process as claimed in claim 24, wherein propylene is brought into contact with a heterogeneous catalyst during the reaction and wherein the heterogeneous catalyst comprises the zeolite TS-1.

Claim 27 (New): The process as claimed in claim 24, wherein the sum of key components in the purified propylene oxide is less than 5% by weight, with the sum of propylene oxide and all the other components present in the propylene oxide being 100% by weight.

Claim 28 (New): The process as claimed in claim 24, wherein the dividing wall column comprises at least two thermally coupled distillation columns.

Claim 29 (New): A continuously operated process for the intermediate isolation of propylene oxide formed by reaction of hydrogen peroxide with propylene in the propylene oxide synthesis, which process comprises at least the steps (i) to (iii):

(i) reacting the hydrogen peroxide with propylene to give a product mixture comprising the propylene oxide and unreacted hydrogen peroxide, wherein propylene is brought into contact with a heterogeneous catalyst comprising the zeolite TS-1 during the reaction,

(ii) separating the unreacted hydrogen peroxide from the mixture resulting from step (i) by fractionating the mixture in a dividing wall column to give a low-boiling fraction, an intermediate-boiling fraction and a high-boiling fraction, and the propylene oxide is taken off in the intermediate-boiling fraction at the side offtake and the hydrogen peroxide is taken off in the high-boiling fraction at the bottom of the column, wherein the dividing wall column has from 10 to 70 theoretical plates and wherein the pressure at the top of the dividing wall column is from 0.5 to 5 bar and the distillation temperature at the side offtake is from 10 to 60°C,

(iii) reacting the hydrogen peroxide which has been separated off in step (ii) with propylene, wherein propylene is brought into contact with a heterogeneous catalyst comprising the zeolite TS-1 during the reaction, and wherein the sum of key components in the purified propylene oxide is less than 5% by weight, with the sum of propylene oxide and all the other components present in the propylene oxide being 100% by weight,

with an isothermal fixed-bed reactor being used in step (i) and an adiabatic fixed-bed reactor being used in step (iii).

Claim 30 (New): An apparatus for carrying out a continuously operated process for the intermediate isolation of the oxirane formed in the oxirane synthesis by reaction of a

hydroperoxide with an organic compound, wherein the apparatus for preparing the oxirane comprises at least one isothermal reactor and one adiabatic reactor for carrying out the steps (i) and (iii) of a process comprising at least the steps (i) to (iii):

(i) reacting the hydroperoxide with the organic compound to give a product mixture comprising the reacted organic compound and unreacted hydroperoxide,

(ii) separating the unreacted hydroperoxide from the mixture,

(iii) reacting the hydroperoxide which has been separated off in step (ii) with the organic compound,

with an isothermal fixed-bed reactor being used in step (i) and an adiabatic fixed-bed reactor being used in step (iii), which apparatus further comprising a separation apparatus for the step (ii), where the separation apparatus comprises a dividing wall column having one or two side offtakes or at least two thermally coupled columns.